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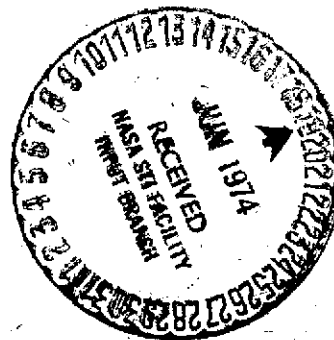
A CATALOGUE OF GALAXIES HAVING  
RADIAL VELOCITIES

by

L.W. FREDRICK  
and  
W. A. GUTSCH

CHARLOTTESVILLE, VIRGINIA

1974



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L. W. FREDRICK AND W. A. GUTSCH

*Forward.* This catalogue was generated originally to study the distribution of radial velocities. Word that it existed reached many places and requests for copies have been received from all over the world. Each copy, heretofore, has had to be singly generated on the computer and mailed in a bulky package. It is hoped that this printing will make the catalogue more generally available at much less cost.

The catalogue is intended as a search aid bringing together material from many different sources. We wish to thank Allan Sandage for his comments and Philip Ianna and Harold McAlister for their computer formatting assistance. The construction of the catalogue was carried out as part of a grant from the National Aeronautics and Space Administration, NGL 47-005-066.

## Explanation of the Catalogue

The entries are listed in order of increasing RA and at each RA in order of decreasing DEC. The information, where available, is listed as follows:

Column 1: Catalog designation, e.g.

NGC	— New General Catalogue
IC	— Index Catalogue
MCG	— Morphological Catalogue of Galaxies
HARO	— Haro, G., <i>Bol. Obs. Tonantzintla y Tacubaya</i> (No. 14). 8 (1956)
VV	— Vorontsov-Velyaminov, B.A., <i>Atlas and Catalogue of Interacting Galaxies</i> (1959)
ARP	— Arp H., <i>Astrophys. J. Suppl.</i> 14, 1 (1966)
ZW	— Zwicky's lists entitled <i>Compact Galaxies and Compact Pairs of Galaxies; Eruptive and Post Eruptive Galaxies</i> , e.g., III ZW 2 means the second galaxy in Zwicky's third list.
MARKARIAN	— <i>Astrofizika</i> 3, 55 (1967)
ANON	— Anonymous. See particular reference.

Some anonymous objects close to NGC or IC objects have been given the corresponding NGC or IC numbers followed by a letter A, B, C, etc.

Column 2: RA (1950)

Column 3: DEC. (1950)

Column 4: New galactic longitude,  $l^{\text{II}}$

Column 5: New galactic latitude,  $b^{\text{II}}$

Column 6: Morphological type. If the data is from *Reference Catalogue of Bright Galaxies*, de Vaucouleurs, G. and de Vaucouleurs, A. (1964), reference MA revised morphological type as detailed in this source.

Column 7: Magnitude

C = Harvard photographic magnitude statistically corrected to the B(10) system as explained in *Reference Catalogue of Bright Galaxies* (1964).

P = Designated photographic in the original publication.

V = Designated visual in the original publication.

Column 8: V = Observed radial velocity in kilometers per second.

Column 9: Radial velocity corrected for solar motion in kilometers per second (relative to the Local Group of galaxies) through the relation

$$v_o = v + \Delta v = v + 300 \cos A$$

where A is the angular distance to the conventional extragalactic solar apex at  $l^{\text{I}} = 55$ ,  $b^{\text{I}} = 0$  following the precepts of Humason and Wahlquist (AJ 60, 254-259, 1955) and Humason, Mayall and Sandage (AJ 61, 97-162, 1956).

Column 10: Estimated error in radial velocity in kilometers per second as indicated in reference.

Column 11: Reference. Each reference carries a two-letter designation as indicated below.

If a radial velocity has been determined for a galaxy subsequent to the publication of de Vaucouleurs' *Reference Catalogue of Bright Galaxies* (1964), the additional information immediately follows the general entry from the above reference.

If a galaxy, pair of galaxies or group of galaxies appears in more than one catalog and therefore carries more than one designation, the alias or aliases are indicated on following cards (or lines) preceded by an equality sign. In some instances due to limitations in data storage abbreviations are made e.g.

$$5560+6+9=\text{ARP}286 \text{ means}$$

the group of galaxies NGC 5560, NGC 5566 and NGC 5569 corresponds to object number 286 in ARP's list.

# References

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DESIGNATION	RA(1950)	DEC(1950)	L II	B II CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II CLASSIFICATION	MAG	V	V0	ERROR	REF		
MCG7814 = MCG 3-1-28	08 10.7	+15 51	108	-45	.SAB2...P280	11.980	1067	1245	50	NA	MCG8099 = MCG 2-2-2	08 19.4	+16 12	115	-52	.SAB(R)CP	13.19	4666	5855	48	MC
MCG8016 = MCG 4-1-32	00 06.5	+67 67	112	-24	.L3...P100	13.220	3110	3354	56	NA	IT ZH 20	08 24.7	+18 31	114	-29		15P	10743	14974	61	MM
MCG8028 = MCG 4-1-33	00 07.1	+25 38	111	-26	.SBS5...P280	13.240	4566	4744	180	NA	AMH0826	08 26.1	+82 39	112	-59	.G.L...M		4460	4597	58	NA
MCG8024	00 07.4	-25 15	44	-48	.S41210		595	626	52	MC	MCG8125 = MCG 4-2-48	08 28.3	+82 33	112	-59	.L.....M		5289	5429	50	NA
IT ZH 2	00 08.0	+18 42	107	-55	.154P	26744	26964	60	NH	MCG8127 = MCG 0-2-88	08 26.6	+82 36	112	-59	.L.....P280		4094	4236	48	NA	
MCG8045 = MCG 4-1-21	00 11.4	-23 27	56	-81	.SBS5...P280	11.210	458	469	34	NA	MCG8128 = MCG 8-2-81	08 26.7	+82 35	112	-59	.L...P/P280	12.42C	4256	4346	58	NA
MCG8055 MCG8056	00 12.5	-39 30	333	-76	.SBS9...S104	4.130	331	97	NA	MCG8134	08 27.9	-23 32	118	-82	.SBS4...M100	11.220	1681	1645		NA	
IT ZH 3	00 12.8	+24 12	112	-87		14.5P	18284	18419	68	NH	MCG8140 = ARP 19 = MCG 3-1-27	08 24.2	-95 26	118	-67	.SB(S)M		4159	4294	19	MC
MCG8066 = MCG 5-1-65	00 15.8	+29 44	119	-82	.L.....M		5787	5811	68	NA	MCG8151	08 31.6	-69 54	118	-72	.SB(R)M	12.5P	1654	1727	42	MC
MCG8069 = MCG 5-1-66	00 15.8	+29 44	119	-82	.L.....M		6637	6661	108	NA	MCG8154 = MCG 2-2-25	08 31.8	-22 64	116	-84	20	12.9P	1461	1469	92	MC
MCG8071 = MCG 5-1-66	00 15.9	+29 48	119	-82	.L.....M		6591	6616	158	NA	MCG8157 = MCG 2-2-25	08 32.3	-66 44	116	-71	.SB(T)...P280	11.430	1746	1826		NA
MCG8072 = MCG 5-1-69	08 15.9	+29 46	118	-82	.SB...M		6576	7088	158	NA	MCG8168 = MCG 4-2-23	01 33.4	+23 41	118	-59	.BLA...P.V100		9289	9453	58	NA
MCG8078	08 16.0	+29 45	115	-80	.E...P		6887	7831	138	NA	MCG8169 = MCG 4-2-25	01 35.7	+82 28	116	-80	.B...L...M		5824	5863	58	NA
IT 1010 = MCG 10-1-1	08 17.6	+59 82	119	-83	.L(R).P280		- 347	- 62	NA	MCG8245 MCG8245 = MCG 8-2-10	00 36.1	+46 84	121	-19	.S43...P280	11.140	- 232 - 283	- 18		NA	
MCG8080 = MCG 4-2-4	08 18.6	+22 05	114	-80	.L.....M		5586	5789	188	NA	MCG8249 = MCG 8-2-105	00 36.9	+82 48	117	-60	.E.L...M		5163	5234	58	NA
MCG8143 62/83=MCG4-2-5	08 18.8	+22 09	114	-80	.E.B...M		6541	6745	158	NA	HARD 18	00 36.9	+22 23	116	-80	808	13.4V	1668	1639	77	NJ
DESIGNATION	RA(1950)	DEC(1950)	L II	B II CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II CLASSIFICATION	MAG	V	V0	ERROR	REF		
MCG8205 = MCG 7-2-14	00 37.6	+41 25	123	-21	.E49.P.....	10.160	- 239	- 6	NA	HARD 19 = MCG 263				818		10.8V	6425	6477	25	NJ	
MCG8218 = MCG 2-2-81	00 38.8	-14 39	123	-77	.SBS3...P280	10.460	1764	1829		NA	MCG8274 = MCG 1-1-21	08 48.9	-87 29	123	-70	.L(R)...P280	13.160	1098	1971	43	MM
MCG8214 = MCG 4-2-44	00 38.7	+29 14	126	-37	.S485...M100	11.130	4921	4728		NA	MCG8275 = MCG 1-1-22 276P=ARP148 = V191	08 48.8	-87 20	123	-70	.SB(T)...P280	13.130	1773	1954		NA
MCG8224 = MCG 7-2-16	00 48.8	+41 89	121	-22	.S455.....	6.990	- 299	- 88	NA	MCG8276 = MCG 8-2-16	08 45.2	+47 10	123	-15	.S413...P280	12.940	633	667		NA	
MCG8221 = ARP 148 = R 32 = MCG 7-2-15	00 48.8	+49 36	121	-22	.L.....M	9.530	- 213	17	NA	MCG8280 = MCG 8-2-10	08 58.4	-31 29	299	-86	.SB(T)...M100	11.920	1968	1987		NA	
MCG8227 = MCG 8-2-135	00 48.1	-91 46	116	-84	.E...M	13.120	9318	9424	65	NA	I ZH 1	08 51.0	+12 29	124	-51		14.8P	16162	16167	88	MM
MCG8244 = HARD 14 = MCG 3-2-3	00 43.8	-15 51	116	-78	02	13.59	971	1821	68	NH	AMH0851	08 51.0	-73 46	123	-44	.1059.....	1.880	161	- 13		NA
MCG8247 = MCG 3-2-3	00 44.6	-21 81	114	-83	.S457...M100	9.830	- 156	- 128	NA	MCG8284 = MCG 1-1-3-61	08 52.6	-27 54	299	-79	.LAST...R074	6.980	169	98		NA	
AMH08464	00 45.0	-29 46	125	-83	.S...P	6144	6192		NA	MCG8285 = MCG 1-1-3-53	08 57.5	-87 51	124	-70	.SB(T)...	12.2P	1649	1782	33	MC	
AMH08498	00 45.0	-29 42	115	-83	.S...P	6388	6384		NA	MCG8287 = MCG 1-1-3-61	08 59.2	-87 42	131	-70	.L.....M100		284	459	68	MM	
MCG8295 = MCG 4-2-9 = MCG 222	00 45.1	-25 34	97	-89	.S455...M100	7.870	66	184	NA	MCG8288 = MCG 8-2-78	01 01.4	-16 37	131	-69	.SB(R)...M100	12.910	2943	2816	58	MM	
MCG8294 = MCG 2-3-17	00 45.2	-11 45	128	-74	.S414...P280	12.990	1424	1487	NA	IC1613	01 02.5	+01 42	188	-61	.L...M...M	6.630	- 234	- 129		NA	
IT ZH 12 = IC1646	00 45.8	+22 06	122	-41		14.9P	5836	6089	68	NA	AMH0102	01 02.6	-16 29	132	-69	.SB(T)...M100	12.280	983	1087		NA
AMH08146	00 46.0	-13 05	128	-76			6536	6595		NA	MEM 1	01 02.6	-06 29	137	-68	.SB(R)SD		983	1087	48	NA
HARD 19	00 46.8	-13 85	127	-76			6536	6592	34	MC	MCG8296 = MCG 8-2-69 8275=84=ARP331	01 04.3	+32 85	127	-20	.E...M		6811	6889	48	NA
MCG8297 = MCG 8-3-88	01 04.5	+32 19	127	-20	.L.....M		5374	5973	68	NA											
DESIGNATION	RA(1950)	DEC(1950)	L II	B II CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II CLASSIFICATION	MAG	V	V0	ERROR	REF		
0375-88=ARP351										= MCG 8-4-78											
MCG8308 = MCG 5-3-51 0375-88=ARP351	01 04.9	+32 18	127	-38	.E...M	4.14	4529	158	NA	MCG8378 = MCG 8-4-94	01 17.1	+82 85	187	-59	.S41510	12.4P	2557	2656	48	MC	
MCG8343 = MCG 5-3-53 0375-88=ARP351	01 04.6	+32 88	127	-38	.L.....M	4.088	5886	59	NA	MCG8379 = MCG 8-4-95 = M1304	01 17.5	+82 18	187	-59	.L050...P280	12.160	2368	2483	48	NA	
MCG8382 = MCG 5-3-52 0375-88=ARP351	01 04.6	+32 88	127	-38	.L.....M	5156	5354	58	NA	IT ZH 23	01 16.4	+22 31	182	-48		17P	18269	13382	68	NH	
MCG1364 = MCG 5-3-55 0375-88=ARP351	01 04.6	+32 88	127	-31	.L.....M	4461	4599	168	NA	IT ZH 24	01 16.6	+16 44	183	-45		15.6P	21884	21891	68	NH	
MCG8386 = MCG 5-3-57 0375-88=ARP351	01 04.7	+32 85	127	-38	.E...M	5855	5763	198	NA	MCG8408 = MCG 1-4-53	01 19.1	+89 80	187	-57	.S463...P280	11.970	2188	2284	158	NA	
MCG8389 = MCG 5-3-56 0375-88=ARP351	01 04.7	+32 88	127	-38	.E...M	5855	5763	198	NA	IT ZH 4	01 19.5	-18 14	149	-83		15.1P	16173	16256	68	NH	
MCG8390 = MCG 5-3-59	01 04.7	+32 88	127	-38	.E...M	5855	5763	198	NA	MCG8405 = MCG 5-4-35	01 24.2	+32 12	188	-29	.L.....M		4114	4384	58	NA	
MCG8394 = MCG 5-4-11	01 04.7	+32 88	127	-38	.E...M	5855	5763	198	NA	MCG8406 = IC1646 = MCG 8-4-38	01 24.4	+32 11	181	-29	.L.....M		4375	4565	58	NA	
MCG8398 = MCG 5-4-99	01 04.8	+32 82	127	-38	.E...M	5814	5312	188	NA	IT ZH 2	01 24.6	+36 19	188	-28		14.7P	6856	7052	68	NH	
MCG8399 = MCG 5-4-11	01 04.8	+32 82	127	-38	.E...M	5814	5312	188	NA	MCG8507 = MCG 8-4-44 5077=84=ARP351 = V1921	01 24.8	+32 59	181	-28	.E...M		4929	5110	51	NA	
MCG8404 = MCG 5-4-28	01 04.6	+32 87	127	-27	.L45...M100	12.830	- 36	169	32	NA	MCG8514 = MCG 8-4-35	01 21.3	+12 29	125	-49	.S415...M100	12.290	2541	2670		NA
MCG8434	01 18.2	-56 31	296	-64	.S432...R974	13.260	4655	4710	87	NA	IT ZH 27	01 21.4	+13 46	125	-48		16P	16585	16495	68	NH
MCG8429 = MCG 014-36	01 18.4	88 48	134	-61	.S459...M100	18.740	1678	1173	NA	MCG8520	01 22.0	+83 32	129	-58	.P.....P280	12.4P	2223	2120		NA	
MCG8440	01 18.9	-54 33	294	-51	.S454...R974	5244	5486	69	NA	MCG8524 = ARP 157 = MCG 1-4-52 = V1921							275	242	52	NA	
MCG8457	01 18.6	+83 83	136	-59	.S453...P	5568	5667	43	MC												

[illegible]

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1576 19599 AB0210 MCG 1-18-1	04 23.0	-17 09	267	-43	.LAS...S839	12.53C	496	667	NA		ANDROMEDA MCG 1-6-57 * MCG 0-12-16	04 38.1	+04 08	192	-27	.S...L...H	4488	4528	58	NA		
1577 MCG 0-14-35	04 28.1	+08 33	195	-31	.E...L...H	2690	3812	75	NA		MCG 1-6-40 * MCG -3-12-18	04 48.1	+28 32	219	-37	.SDBS...P208	12.78C	1676	1516	NA		
1578 ZW 12 MCG 0-12-57	04 28.1	+08 33	194	-31		14.1P	2679	3888	63	NA	MCG 1-6-59 * MCG -1-13-8	04 48.0	-04 52	262	-39	SA(R)BCP	4557	4486	37	NA		
1579 ZW 13 MCG 1-12-5	04 28.5	+07 31	188	-27		14.6P	3482	3885	60	NA	MCG 1-6-72 * MCG -1-13-28	04 44.9	+04 28	249	-39	.SDBS...S839	11.28C	1260	1034	NA		
1580 MCG -1-12-17	04 29.2	-05 10	200	-33	.E...J...W100	12.77C	4938	4730	120	NA	II ZW 23 J08391 * MCG 1-4-11	04 47.8	+51 15	115	-25		14.8P	0535	8277	68	NA	
1581 MCG -1-12-16	04 29.2	-05 10	200	-33	.L...*/W100		4937	4997	180	NA	J08391 * MCG 1-4-11	04 49.0	+78 06	134	+21	.SASS...L836		1607	1090	NA		
1582 ZW 14 MCG 1-12-9 JC 129 PKS DA30+05	04 30.5	+05 15	198	-27		14.2P	18143	9084	69	NA	MCG 1-7-08 * MCG -1-13-28	04 54.5	-04 56	204	-20	.E...L...P208	12.47C	3976	3057	60	NA	
1583 ZW 15 MCG 1-12-12 BDP116	04 31.6	-04 41	284	-34		L4P	6693	6669	61	NA	MCG 1-7-44 * MCG -4-12-28	04 57.4	-24 06	227	-35	.SDBS...W100	11.95C	676	447	NA		
1584 ARP 146 MCG -1-12-32	04 31.9	-04 41	285	-34	SDBSIP		6744	1629	27	NA	II ZW 24 MCD17418	04 59.8	+02 30	198	-22	P	15.5P	0769	6272	60	NA	
1585 ZW 17	04 32.7	-01 50	197	-31		IAP	9626	9628	68	NA	MCG 1-7-48 * MCG -2-13-42	04 59.1	-04 20	204	-26	P		3937	3616	10	NA	
1586 MCG -1-12-38 MCG -1-12-38	04 34.6	-02 24	198	-31	SDBSIB		3083	2935	60	NA	MCG 1-7-48 * MCG -2-13-42	04 59.1	-04 20	204	-26			4036	3925	27	NA	
1587 ZW 16	04 35.9	+11 04	186	-23		14.8P	4689	4351	68	NA	J09339 * MCG -1-13-45	04 59.2	-04 21	204	-26	IMP		4615	3694	26	NA	
											MCG 1-7-84 * MCG -2-13-42	05 03.2	-11 56	212	-29	SDBRJC		2154	1999	52	NA	
											II ZW 31	05 08.5	-10 04	268	-27	SA(R)BC	14.7P	1254	1835	64	NA	
												05 09.2	+00 06	202	-22		19.2P	15854	15168	08	NA	
											MCG 1-8-00	05 09.9	-37 34	241	-36	R3S38...W100	11.07C	1834	819	87	NA	

DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF
HGC1888 11 24 33 = HGC 8-3-18	05 08.2	-02 45	204	-24		14.8P	2432	2711	60	HM	HGC2207 06 14.3	-21 21	223	-17		SKFAP..M180	12.51C	2648	2455	48	MA
11 24 34	05 08.7	+01 26	203	-21		16P	15916	15659	60	HM	HGC2217 06 19.7	-27 14	235	-14		RLBF...M180	12.51C	1979	1234		MA
HGC2632 = HGC 2-14-18	05 16.0	-15 47	217	-24	.S084...P208	12.54C	2837	1869	280	HA	HGC2284 = HGC 34-4-22	07 01.3	+04 38	129	+20	.S084...M080	12.38C	2837	2834		MA
11 24 35	05 16.4	+00 52	201	-28		15P	7521	7200	60	HM	HGC2314 = HGC 13-6-3	07 03.4	+75 13	139	+27	.E.3...M080	12.84C	3560	4024		MA
11 24 37	05 16.4	+02 34	200	-19		14P	17928	16766	60	HM	HGC2339 = HGC 3-19-2	07 05.4	+18 52	198	+12	.S084...M180	12.64C	2361	2254	48	MA
HGC1888 = HGC 2-14-13	05 20.2	-11 32	218	-28	.S084P..M080		2557	2395		HA	AN080706 07 05.5	+71 55	143	+27	SP		3226	3376	45	MC	
HGC1889 3450+9+ARP122	05 21.2	-11 32	218	-29	.E.0...M080		2496	2334		HA	AN080706 07 06.3	+73 34	142	+29	.P....*		2459	2496		MA	
AN080524	05 24.0	-09 48	200	-33	.S084P...M080	08.88C	264	16		MA	ARP104 07 06.3	+73 34	142	+29			2611	2704	140	MT	
HGC1904 = HGC 4-14-3	05 31.2	-21 59	229	-27	.S083...P208	11.71C	1049	1649		HA	HGC2384 = HGC 0-13-103	07 08.5	+47 17	128	+23	S080		914	949	38	MC
HGC1904 = ARP 104 = HGC 12-6-7	05 36.0	+09 24	144	+19	.S0875...M080	11.63C	3878	4327		HA	HGC2384 = ARP 85 = HGC 14-4-26 2276+332+ARP114	07 11.8	+05 52	128	+28	.S0875...M080	12.49C	2391	2595		MA
11 24 40	05 53.1	+08 24	202	-10		15.6P	736	473	60	HM	HGC2387 = HGC 11-9-19	07 11.0	+04 54	151	+27	P2AR13+M080	12.12C	4521	4648		MA
HGC2339 = IC2339 = HGC 4-19-5	05 59.0	-28 48	224	-21	.SKFAP...M180	10.71C	1413	1481		HA	HGC2386 = HGC 13-6-6	07 16.2	+08 20	134	+28	.S084...M080	11.53C	2252	2435		MA
11 24 42	06 00.4	+07 00	200	-07		14.8P	3428	5155	60	HM	HGC2386 = HGC 14-4-21 2276+332+ARP114	07 16.5	+05 54	128	+28	.E+2...M080	12.44C	1935	2169		MA
HGC2188	06 08.3	-04 89	241	-18	SK03H	10.8P	678	429	16	MC	HGC2386 = HGC 12-7-20	07 22.4	+72 39	143	+38	D12	13.0P	3853	2263	68	MC
HGC2196 = HGC 10-19-14	06 10.1	-21 47	229	-14	SK03H	10.8P	2888	2365	48	MC	HGC2386 = HGC 12-7-20	07 24.0	+09 08	147	+24	1B131H	10.8P	145	261	18	MC
HGC2196 = HGC 13-9-28	06 10.7	+78 28	128	+26	.S082P..P208	11.33C	012	994		HA	HGC2389 07 24.2	+32 99	185	+22	.L....E.		4820	3994	65	MA	
DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF
= HGC 4-17-4											= HGC 4-20-5 2539+336+ARP62										
HGC2389 = HGC 4-17-11	07 25.0	+23 56	185	+22	.SKF5...M080		3016	3700		A	HGC2393 = ARP 9 = HGC 10-3-31	08 05.2	+73 45	141	+32	.S084...P208	12.41C	3449	2600		BP
HGC2402 = HGC 51-10-7	07 32.0	+05 43	151	+29	.SKF5...P208	9.94C	136	295		MA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0-15-60 = VV 138	08 09.7	+46 09	174	+33	.T089P..M160	12.49C	608	422	28	BB
HGC2419 HGC2419 = H080 1 = HGC 8-37-21	07 38.7	+05 28	104	+26			3022	3701		HA	HGC2397 = HGC 23-37 = ARP 5 = HGC 0										



DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
CG2783 = HCG 6-23-17	09 57.7	+03 23	225	+30	.....M		3729	3532	69	NA	= HCG 6-23-2										
CG2784 = HCG 6-23-18	09 51.6	+01 55	155	+40	DSR	13.2P	1488	1493	68	MC	HCG2811 = HCG 6-23-3	09 12.4	-16 08	248	+22	.SBF1...P288	12.76C	2916	2896	75	NA
CG2785 = HCG 6-23-19	09 51.6	+55 43	151	+41		37P	14126	14192	64	MM	HCG2798 = HCG 7-19-55 27981990ARP282 = VV50	09 14.4	+42 18	188	+44	.SBF1...P288	15.26C	1704	1782	75	NA
CG2786 = HCG 6-23-20	09 51.6	+10 48	218	+37	.SBF1...P288		3459	3224	98	NA	HCG2797 = HCG 12-9-28	09 14.4	+49 25	144	+38	.LBR1...W868	12.99C	622	783		NA
CG2787 = HCG 6-23-21	09 52.0	+78 18	135	+33	.SNT5...W868	11.97C	1159	1329		NA	AMON916	09 15.7	-11 83	243	+25	.....M		15188	15814	60	MA
CG2788 = HCG 6-23-22	09 52.5	+18 21	213	+37	.E3...W100	13.21C	4283	4876	88	NA	HCG2828 = HCG 12-9-41	09 15.7	-22 88	294	+19	.SBF5...P288	11.38C	909	926		NA
CG2789 = HCG 6-23-23	09 52.7	+68 41	159	+48	SAK5C	12.3P	1291	1388	97	MC	HCG2855 = HCG 12-12-3	09 16.5	+44 69	198	+40	.SK17...P288		1916	2023		NA
CG2790 = HCG 6-23-24	09 57.3	+78 24	133	+32	.....M	12.28C	2121	2287		NA	HCG2831 = HCG 6-21-14	09 16.7	+33 59	191	+44	.E3...M		5189	5196	65	MA
CG2791 = HCG 6-23-25	09 57.7	+87 15	223	+34	.SNT5...W100	11.73C	1185	968	76	NA	HCG2832 = HCG 6-21-15	09 16.8	+33 59	191	+44	.E3...M	12.81C	894	6897	50	MA
CG2792 = HCG 6-23-26	09 57.8	+68 16	199	+45	.E3...W868	11.88C	1406	1489	179	NA	HCG2833 = HCG 6-21-15	09 17.1	+71 45	141	+37	D2	34.7P	3496	3638	60	MC
CG2793 = HCG 6-23-27	09 58.8	+78 11	136	+43	.SNT5...W868	12.68C	1489	1655		NA	HCG2834 = HCG 6-21-16	09 17.3	+64 24	159	+48	.I.B...P288		1672	1788		NA
CG2794 = HCG 6-23-28	09 58.9	+45 11	179	+43	.SNT5...W868	12.97C	2875	2862		NA	HCG2835 = HCG 6-21-16	09 17.6	+64 25	158	+48			1497	1695		NA
CG2795 = HCG 6-23-29	09 58.1	-03 58	252	+16	.LBR1...W868	11.77C	768	431		NA	HCG2836 = HCG 6-21-16	09 17.9	+64 27	158	+48	.SBF5...P288		1491	1799		NA
CG2796 = HCG 6-23-30	09 58.9	+48 17	182	+44	.SNT5...W868	12.47C	2530	2546	35	NA	HCG2841 = HCG 6-21-16	09 18.6	+51 12	167	+44	.SNT5...P288	18.58C	681	871		NA
CG2797 = HCG 6-23-31	09 58.9	+34 39	198	+44	.SBF5...P288	12.9P	1669	1623	22	MC	HCG2855 = HCG 6-23-15	09 19.1	-11 40	243	+28	.SBF5...P288	12.48C	1908	1863	58	NA
DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
CG2865 = HCG 6-23-32	09 21.2	-22 58	253	+19	.E3...W868	12.84C	2714	2441	76	NA	ARON937C	09 26.3	-04 37	240	+34			6852	6612		NA
CG2866 = HCG 6-23-33	09 21.3	+34 44	190	+45	.LBR1...P288	11.81C	1094	1649	180	NA	ARON937D	09 26.3	-04 37	240	+34			6451	6215		NA
CG2867 = HCG 6-23-34	09 26.3	+11 39	221	+39	.E3...M		2960	2683		NA	ARON937E	09 26.5	+32 24	191	+36			6377	6123	158	NI
CG2868 = HCG 6-23-35	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937F	09 26.5	+32 24	191	+36			6588	6526	188	NI
CG2869 = HCG 6-23-36	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937G	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2870 = HCG 6-23-37	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937H	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2871 = HCG 6-23-38	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937I	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2872 = HCG 6-23-39	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937J	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2873 = HCG 6-23-40	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937K	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2874 = HCG 6-23-41	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937L	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2875 = HCG 6-23-42	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937M	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2876 = HCG 6-23-43	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937N	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2877 = HCG 6-23-44	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937O	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2878 = HCG 6-23-45	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937P	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2879 = HCG 6-23-46	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937Q	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2880 = HCG 6-23-47	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937R	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2881 = HCG 6-23-48	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937S	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2882 = HCG 6-23-49	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937T	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2883 = HCG 6-23-50	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937U	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2884 = HCG 6-23-51	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937V	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2885 = HCG 6-23-52	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937W	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2886 = HCG 6-23-53	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937X	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2887 = HCG 6-23-54	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937Y	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2888 = HCG 6-23-55	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937Z	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2889 = HCG 6-23-56	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937A	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2890 = HCG 6-23-57	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937B	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2891 = HCG 6-23-58	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937C	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2892 = HCG 6-23-59	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937D	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2893 = HCG 6-23-60	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937E	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2894 = HCG 6-23-61	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937F	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2895 = HCG 6-23-62	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937G	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2896 = HCG 6-23-63	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937H	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2897 = HCG 6-23-64	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937I	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2898 = HCG 6-23-65	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937J	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2899 = HCG 6-23-66	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937K	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2900 = HCG 6-23-67	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937L	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2901 = HCG 6-23-68	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937M	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2902 = HCG 6-23-69	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937N	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2903 = HCG 6-23-70	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937O	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2904 = HCG 6-23-71	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937P	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2905 = HCG 6-23-72	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937Q	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2906 = HCG 6-23-73	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937R	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2907 = HCG 6-23-74	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937S	09 26.5	+32 24	191	+36			6425	6729	68	NI
CG2908 = HCG 6-23-75	09 26.3	+11 39	221	+39	.SNT5...W868		2500	2443		NA	ARON937T	09 26.5	+32 24	191	+36			6425	6729	68	

DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
BNOW1809	18 06.4	-44 26	246	+48	.1B...P200		330	LL9		NA	= HCG 4-24-24										
HARKARTIAN 78	18 09.2	+56 39	193	+48	DS17	17P	9852	9135	50	NA	HCG3367	18 05.8	+22 68	213	+55	S015CP		1589	1491	22	NA
HCG3191	18 18.6	+26 51	183	+59			7540	7124		NA	HCG3184	18 19.2	+41 40	178	+56	.SXT6...W100	11.14C	414	438		NA
HCG3191							7430	7125	59	NA	HCG3198	18 15.4	+22 05	213	+56	.SAG17/P200	12.46C	1354	1255		NA
= HCG 7-21-18											= ARP 316										
HCG3192	18 10.7	+29 89	183	+55			6471	6456	96	MAHD	HCG3193	18 15.7	+22 89	213	+58	.C.2...P200	12.55C	1371	1271	50	NA
= HCG 7-21-18A											= HCG 4-24-27										
HCG3192	18 10.7	+22 59	211	+54	.SXT4...W100	12.31C	1455	1351	65	NA	HARKARTIAN 18	18 16.3	+57 48	154	+58	DS1E1	17P	8102	6179	50	NA
= HCG 4-24-19											= HCG 10-15-64										
HCG3198	18 10.9	+39 88	183	+55	.E.2...W100	12.96C	7824	7399	50	NA	HARKARTIAN 21	18 16.4	+57 40	154	+50	S12	14.7P	7755	7632	50	NA
= HCG 7-21-28											= HCG 10-15-65										
HCG3199	18 11.0	+38 54	183	+59	.E.2...L...		6950	6934		NA	HCG3194	18 16.7	+45 49	171	+55	.S015...W060	12.84C	649	878		NA
= HCG 7-21-21											= HCG 8-19-28										
HCG3199	18 11.0	+38 54	183	+59	.E.2...L...		6204	6188		NA	HCG3286	18 14.5	+57 11	154	+58	S015CO		1192	1278	27	NA
HCG3199	18 11.0	+38 54	183	+59	.E.2...L...		6204	6188		NA	= HCG 18-15-69										
HCG3203	18 13.2	+28 52	183	+59	.E.2...L...		6245	6229		NA	I 2H 2J	18 14.9	+24 11	283	+57		15.2P	15025	14941	50	NA
HCG3199	18 13.2	+28 52	183	+59	.E.2...L...		6245	6229		NA	HCG3282	18 15.8	+20 88	217	+55	.L8...L...		5977	5971	48	NA
= HCG 1-20-24											= HCG 3-27-11										
HCG3199	18 13.2	+28 52	183	+59	.SAG16/W060	11.74C	1298	1116		NA	HCG3276	18 20.7	+28 89	217	+55	.E.2...P200	12.88C	1338	1232	15	NA
= HCG 3-20-25											= HCG 3-27-13										
I 2H 44	18 12.5	+21 03	214	+54			6137	6052	60	HM	HCG3277	18 20.7	+28 89	217	+55	.SXT3P/P200	11.91C	1111	1085	28	NA
HCG3147	18 12.8	+73 30	136	+39	.SAT4...W060	11.68C	2721	2675	80	NA	= HCG 1-27-13										
= HCG 12-18-29											HCG3278	18 20.7	+28 89	217	+55	.SXT3P/P200	11.91C	1111	1085	28	NA
HCG3177	18 13.9	+21 22	214	+54	.SAT3...W100	11.31C	1220	1118	65	NA	HCG3279	18 20.7	+28 89	217	+55	.SXT3P/P200	11.91C	1111	1085	28	NA
= HCG 4-24-23											= HCG 1-27-13										
HARKARTIAN 29	18 14.5	+48 19	150	+48	D32	16.5P	12785	12677	60	NA	HARKARTIAN 32	18 21.8	+56 31	154	+51	DS	14P	859	921	50	NA
HCG3189	18 14.9	+21 56	283	+55	.S016...P200	12.75C	1241	1142	55	NA	HCG3244	18 24.5	+28 46	282	+58	.LARB...W100	12.17C	1261	1188	30	NA
DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
= HCG 5-25-13											= HCG 7-22-36										
IC2574	18 25.0	+48 43	148	+44	.SXT2...P200		46	179		NA	HCG3338	18 39.9	+34 80	230	+57	.SAG5...W100	11.41C	1289	1202		NA
= HCG 12-18-38											= HCG 9-18-38										
I 2H 46	18 25.1	+22 08	214	+57			12634	12518	60	HM	HCG3344	18 40.7	+25 11	210	+61	.S016...W060	11.19C	979	584	188	NA
I 2H 47	18 25.2	+19 45	218	+56			15359	15204	60	HM	= HCG 4-25-46										
HCG3296	18 25.7	+43 38	277	+12	.P....S030	12.1P	2828	2590		NA	HCG3351	18 41.3	+11 58	234	+56	.S016...P200	11.82C	788	643	83	NA
HCG3296							2828	2590		NA	HCG3351										
HCG3296							2828	2590		NA	= HCG 2-24-1										
HCG3296							2828	2590		NA	HARD 3	18 42.3	+58 15	152	+53			862	940		NA
= HCG 4-25-19											= HARKARTIAN 25										
HCG3299	18 29.2	+65 14	143	+46	.SXT4...W060	13.62C	1864	1884		NA	HCG3359	18 43.4	+63 35	144	+49	.S015...P200	11.66C	1088	1120		NA
= HCG 11-13-27											= HCG 11-13-17										
HARD 2	18 29.3	+54 48	158	+53			1371	1436		NA	HCG3360	18 43.4	+63 35	144	+49	.S015...P200	11.66C	1088	1120		NA
= HARKARTIAN 33											= HCG 12-10-77										
HCG3277	18 28.2	+24 44	282	+59	.SAG2...W100	12.96C	1440	1399	73	NA	HCG3367	18 44.0	+14 01	231	+58	.S015...W100	12.42C	2674	2753	188	NA
= HCG 5-25-22											= HCG 4-24-5										
HCG3294	18 33.4	+27 35	186	+48	.SAG5...W100	11.96C	1469	1450		NA	HCG3368	18 44.2	+12 05	235	+57	.SXT2...P200	10.54C	935	880	150	NA
= HCG 4-25-21											HCG3368										
HCG3281	18 34.3	+22 88	215	+59	.PMB10...W100	12.44C	1393	1241	75	NA	= HCG 2-25-6										
= HCG 4-25-25											HCG3379	18 44.5	+17 32	225	+60	.SAG5...W060	12.34C	1438	1298		NA
ARP4192H	18 34.3	+24 23	287	+31			6317	6208	100	NA	= HCG 5-28-8										
ARP4192S	18 34.3	+24 23	287	+31			5988	5951	100	NA	HCG3377	18 45.1	+14 15	231	+59	.E.9...P200	11.69C	718	595	48	NA
HCG3232	18 34.6	+27 08	278	+27	.SAG3P/W060	12.43C	2863	2766	75	MAHD	= HCG 2-28-9										
HCG3236	18 35.2	+27 21	278	+27	.L8B...W060		2869	2842	91	MAHD	= HCG 2-28-11										
= HCG 4-25-46											HCG3379	18 45.2	+12 01	231	+59	.E.1...P200	11.84C	677	746	132	NA
HCG3318	18 35.7	+51 46	157	+44	.SAG5...W060	11.39C	1926	1898		NA	HCG3384	18 45.7	+12 54	233	+58	.L85...P200	11.89C	767	694	40	NA
= ARP217											= HCG 2-28-12										
= HCG 4-18-8											HCG3389	18 45.8	+12 48	234	+59	.SAG5...P200	12.74C	1334	1203		NA
HCG3319	18 36.4	+41 56	176	+59	.S016...W060	11.84C	826	832		NA	= HCG 1-28-13										
DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
HARD 28	18 44.9	+25 18	280	+63	D2	14.8P	6447	6374	67	NA	= HCG 9-18-39										
HCG3299	18 47.1	+38 15	193	+53	.SXT6...P200	2.73C	1656	1622		NA	HCG3444	18 51.8	+17 36	227	+61	.S016...W100		1167	1068		NA
= HCG 8-24-17											= HCG 3-28-18										
HCG3396	18 47.2	+32 16	193	+53	.1B...P200	12.72C	1645	1611		NA	HCG3449	18 51.8	+17 38	227	+61	.S016...W100	13.13C	1113	1006		NA
= HCG 8-24-18											= HCG 3-28-21										
J2054W/W060P270											= HCG 2-28-39										
= YN246											HCG3449	18 51.8	+17 38	227	+61	.S016...W100	13.13C	1113	1006		NA
HCG3432	18 48.3	+12 41	233	+59	.L85...W100	11.82C	861	735	75	NA	HCG3449	18 51.8	+17 38	227	+61	.S016...W100	13.13C	1113	1006		NA
= HCG 8-28-16											= HCG 9-26-32										
HCG3431	18 48.4	+28 15	234	+63	.L85...L...	12.28C	1449	1391	100	NA	HCG3449	18 51.8	+17 38	227	+61	.S016...W100	13.13C	1113	1006		NA
= HCG 3-28-21											= HCG 1-28-27										
HCG3439	18 48.7	+34 13	232	+59	.L85...W100		2982	2859		NA	HCG3594	18 51.8	+17 38	227	+61	.S016...W100	13.13C	1113	1006		NA
= HCG 2-28-10											= HCG 9-26-39										
HCG3438	18 49.5	+23 14	193	+64	.S015...W100	12.24C	1742	1709		NA	HCG3511	18 51.8	+17 38	227	+61	.S016...W100	13.13C	1113	1006		NA
HCG3438	18 49.5	+23 14	193	+64	.S015...W100	12.24C	1742	1709		NA	HCG3510	18 51.8	+17 38	227	+61	.S016...W100	13.13C	1113	1006		NA
HCG3438	18 49.5	+23 14	193	+64	.S015...W100	12.24C	1742	1709		NA	= HCG 5-28-40										
HCG3438	18 49.5	+23 14	193	+64	.S015...W100	12.24C	1742	170													

SIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	
DM1160	11 14.7	+10 42	227	+65	.E.....P	7.982	7.986			MA	* HCG 18-16-129											
DM1167A	11 17.2	+24 32	214	+67		6.814	6.246			MA	HCG2421 = HCG 5-27-9	11 15.9	+27 33	243	+27		9.9	673	410	70	MF	
DM1170	11 17.3	+24 32	214	+67		5.956	5.928			MA	HCG2623 HCG2623	11 16.8	+18 23	243	+64	.SXT3...W100	18.920	759	643	42	MA	
DM1184	11 16.1	+29 02	203	+66	.S.....P	8.903	8.757			MA	* HCG 2-27-13 3623+7+8+ARP517 = VV308										MA	
DM11628	11 16.1	+29 02	203	+66	.L.....P	8.950	8.904			MA											MA	
DM11880	11 16.1	+29 02	203	+66		8.829	8.793			MA	HCG3619 = HCG 18-16-115	11 16.5	+58 02	145	+55	RLAS+...W088	12.670	1649	1744	75	MA	
CG3556 HCG 9-14-94	11 16.7	+55 57	143	+56	.SBS5...W100	18.980	180	753		MA	HCG3626 = HCG 18-16-115	11 17.5	+18 25	233	+67	RLAR+...W100	12.130	1452	1361	148	MA	
CG3565 HCG 9-14-94	11 16.9	+56 24	277	+53	.E+7...W080	11.910	14.91	1240	75	MA	HCG3627 HCG3627 = ARP 14 = HCG 2-28-19 3623+7+8+ARP517 = VV308	11 17.8	+13 17	242	+64	.SXS1...W100	18.890	726	630	591	76	MA
CG3583 HCG 2-29-14	11 12.4	+12 88	240	+63	.SAS0...W088	12.840	547	429	75	MA	HCG3627 HCG3627 = ARP 14 = HCG 2-28-19 3623+7+8+ARP517 = VV308	11 17.8	+13 17	242	+64	.SXS1...W100	18.890	726	630	591	76	MA
CG3649 HCG 3-28-19	11 14.2	+18 18	231	+66	.E...+...W080	13.310	693	599	65	MA	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
CG3667 HCG 3-28-20	11 14.3	+18 20	231	+66	.LAS0...W088	11.730	351	440		MA	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
CG3688 HCG 3-28-22	11 14.4	+18 26	230	+67	.E...2...W080	12.610	1218	1117	98	MA	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
CG3613 HCG 3-28-26	11 14.5	+18 58	234	+58	.SAS1P...W100	12.670	1754	1663	75	MA	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
URKATIAN 28 HCG 9-19-34	11 15.5	+54 02	149	+58	S02	19.2P	18888	18742	60	NK	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
CG3610 HCG 10-18-107	11 15.6	+59 84	143	+55	.E...5...W060	12.870	1785	1864	50	MA	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
ARKATAN 28 HCG 9-19-35	11 15.6	+54 02	149	+58	DS1(C)	19.2P	18887	18871	60	NK	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
CG3613	11 15.7	+56 17	144	+55	.E...6...W100	12.120	2884	2150	75	MA	HCG3628 = HCG 2-29-20	11 17.7	+13 17	243	+65	.S...JP/W100	18.590	642	736			MA
SIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	
ARP 155											HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3664 ARP 5 DDO 35 HCG 1-29-41 W 251	11 21.7	+103 35	258	+58	SB(C)MP	12.6P	1486	1253	24	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3665 HCG 7-24-3	11 22.1	+39 02	175	+69	.LASB...W100	12.440	2082	2018	58	MA	IL 24 53	11 36.3	+45 53	156	+67		19.3P	17315	17361	88	MM	
CG3672 HCG 7-29-28	11 22.5	+39 02	278	+67	.SASB...W100	11.820	2145	1645		MA	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
ZW 29 W100 HCG 9-19-73 ARKATAN 28 HCG 9-19-35	11 22.7	+54 02	147	+58		16P	6173	6255	68	MM	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3675 HCG 7-24-4	11 23.9	+43 52	144	+60	.SAS3...W060	11.640	696	727	58	MA	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3681 HCG 3-29-48	11 21.9	+17 19	236	+65	.SAS4...W100	12.940	1214	1220	65	MA	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP	12.1P	2494	1897	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
ZW 26 W100 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11	153	+65	.SBS3...W060	12.710	746	604			MA
CG3699 HCG 10-17-3	11 26.0	+54 49	147	+65	SP		3111	3212	14	MC	HCG3749 = HCG 8-21-76	11 35.1	+40 11									

DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
= NGC 1-29-82											= NGC 1-32-40										
NGC4201 = NGC 1-32-12	12 17.4	+85 44	283	+57	...+P200	12.34C	2502	2442	93	NA	NGC4348 = NGC 13-9-27	12 22.4	+75 48	128	+41	...E6...L1636	12.49C	2011	1999		NA
NGC4261 = NGC 3-29-61	12 17.9	+29 35	193	+83	...E6...P200	13.81C	1005	1076		NA	NGC4371 = NGC 2-32-31	12 22.4	+11 95	289	+73	SB1048	12.1P	977	956	38	NA
NGC4289 = NGC 13-9-24	12 19.1	+75 45	125	+42	...E6...L1836	12.88C	1315	1994		NA	NGC4374 = NGC 2-32-34	12 22.4	+13 18	278	+75	...E6...P200	11.49C	954	878	58	NA
NGC4293 = NGC 3-32-16	12 19.7	+19 40	265	+79	SB58...1180	11.59C	750	605		NA											
NGC4294 = NGC 2-32-9	12 19.7	+11 47	277	+75	...SB58...L1836	12.89C	598	566	47	NAHB	J11 24 65 = NGC4377 = NGC 3-32-45	12 22.7	+14 82	274	+76		12.5P	1327	1259	58	NA
NGC4299 = NGC 2-32-18	12 19.2	+11 47	277	+73	...SB58...L1836	12.87C	597	103	38	NAHB	NGC4382 = NGC 3-32-29	12 22.8	+14 28	264	+79	...L1836...P200	16.92C	765	712		NA
NGC4302 = NGC 1-32-22	12 19.4	+84 45	244	+66	...SB58...P200	11.49C	1671	1559	159	NA	NGC4387 = NGC 2-32-39	12 23.2	+12 05	275	+75	...E13...L1826	915	+35	65		NA
NGC4311 = NGC 1-29-75	12 20.0	+20 10	144	+63	...SB58...P200	11.92C	661	679	85	NA	NGC4394 = NGC 3-32-35	12 23.4	+14 29	266	+79	...SB58...P200	11.91C	772	719	158	NA
NGC4321 = NGC 1-32-15	12 20.4	+16 06	273	+77	...SB58...P200	10.98C	1617	1552	75	NA	NGC4486 = NGC4488 = NGC 2-32-46	12 23.7	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4324 = NGC 1-32-32	12 20.6	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4325 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4326 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4327 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4328 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4329 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4330 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4331 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4332 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4333 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4334 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4335 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4336 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4337 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4338 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4339 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4340 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4341 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4342 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4343 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4344 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4345 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4346 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4347 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4348 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4349 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4350 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4351 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4352 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4353 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4354 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4355 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4356 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4357 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4358 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4359 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4360 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4361 = NGC 1-32-32	12 20.7	+20 31	265	+67	...L1836...L1836	12.82C	1714	1605	56	NA	NGC4488 = NGC4486 = NGC 2-32-46	12 23.8	+15 13	279	+75	...E13...P200	18.92C	- 892 = 119	- 367 = 165	41	NA
NGC4362 = NGC 1-32-32																					

SIGNATOR	RAT(1991)	DEC(1991)	L TI	R TI	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RAT(1991)	DEC(1991)	L TI	R TI	CLASSIFICATION	MAG	V	V0	ERROR	REF
C4094 GC4094 MCG -2-32-20	12 37.3	-11 21	299	+91	-SAS1/P280	9.2EC	1160 1696	1062 496	41	NA NO	+ MCG 2-33-1										
C4095 MCG 18-18-74	12 37.0	+51 93	125	+95	-SBS9P/V068	11.36G	140	276		NA	MCG4094 = MCG 2-33-2 4477444=ARP111	12 41.1	+11 49	296	+76	-E,2...P288	16.67C	1119	1200	41	NA NO
RU 31A	12 36.6	+28 14	192	+87	2R		9298	9388			MCG4091 = ARP119	12 41.2	+14 40	292	+79	2A(RSIC)	11.6P	732	685	42	NO
RU 31M	12 38.9	+28 14	192	+87	D4MEAKI	15.5V	7485	7886	36	MJ	= MCG 3-23-1 = W956										
C4016 GC4016 ARP 23 V0 72 MCG 7-24-37	12 36.2	+41 26	141	+76	-S019...H180 S01K51H	11.71G	486 592	540 618	22	NA NO	MCG4094 = MCG 12-33-4	12 41.4	+13 23	296	+76	3ABUSICD	11.7P	1822	968	45	NO
C4023 MCG 8-32-163	12 39.5	+11 95	294	+74	-E,5...H200	11.44C	416	346	129	NA	HARD 32A	12 41.5	+55 11	126	+62		15.6V	4971	5863	57	MJ
C4031 GC4031 ARP20A MCG 6-24-28	12 39.0	+32 49	143	+66	-SBS7/P206	9.86C	626 665	646 689	28	NA NO	HARD 32B	12 41.5	+59 11	126	+62	50Z	14.8V	4612	5824	52	MJ
C4032 MCG 9-32-30	12 40.0	+88 51	258	+83	SAC	1E.1P	1688	1572	48	NO	HARD 32E	12 41.5	+59 11	126	+62	0	13.9V	4551	4662	127	MJ
C4034 MCG 8-32-188	12 41.2	+51 43	295	+74	-L...-/L036	12.64C	1902	1910	198	NA	I 24 AB = MCG 4-28-23/34	12 41.5	+59 13	126	+62		12.5P	4866	5826	60	TH
C4036 MCG 8-32-188	12 40.3	+59 38	126	+61	D	15.6V	6766	6676	86	MJ	MCG4036 59/57MCG5-30-66	12 41.6	+82 26	140	+85	-SBS9P/V068	11.1EC	735	775		NA
C4037 MCG 8-32-188	12 41.2	+51 43	295	+74	-L...-/L036	12.64C	1902	1910	198	NA	MCG4068 = MCG 2-33-5	12 42.8	+11 26	297	+74	-E,0...L036	12.51C	1817	948	38	NA
C4038 MCG 8-32-188	12 40.3	+59 38	126	+61	D	15.6V	6766	6676	86	MJ	MCG4069 = HARD 32F = MCG 4-21-30	12 42.5	+55 41	126	+61	0	13.3V	4599	5111	299	MJ
C4039 MCG 8-32-188	12 40.3	+59 38	126	+61	D	15.6V	6766	6676	86	MJ	MCG4065 = MCG 1-33-5	12 42.6	+62 19	299	+66	-SBS0...H300	11.74C	785	684	50	NA
C4040 MCG 8-32-188	12 40.3	+59 38	126	+61	D	15.6V	6766	6676	86	MJ	MCG4066 = MCG 9-33-8	12 42.6	+80 12	299	+62	-S,5...H300	11.78C	1645	1538		NA
C4041 MCG 8-32-188	12 40.3	+59 38	126	+61	D	15.6V	6766	6676	86	MJ	HARD 33	12 42.8	+28 43	169	+81	0Z	14.5P	1111	1113	142	MJ
C4042 MCG 8-32-188	12 40.3	+59 38	126	+61	D	15.6V	6766	6676	86	MJ	MCG4070	12 42.8	+27 23	213	+89	-SBS0P/P206	11.26C	1218	1284		NA
C4043 MCG 8-32-188	12 40.3	+59 38	126	+61	D	15.6V	6766	6676	86	MJ	MCG4070	12 42.8	+27 24	213	+89		11.80	1180	100	MI	



SIGNATION	RAC(1998)	DEC(1998)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RAC(1998)	DEC(1998)	L II	B II	CLASSIFICATION	MAG	V	V0	ERROR	REF	
NOG 5-31-64											NOG 5-31-61											
NOG 5-31-66	12 57.1	+28 14	58	+88		7604	7108	150	NI		NOG 5-31-67	12 57.6	+28 21	59	+88	SDG	7381	7394	188	NI		
NOG 5-31-68	12 57.1	+28 09	56	+88		4728	4732	158	NI		NOG 5-31-80	12 57.6	+28 19	59	+88	..E.....M	5789	5802	75	NA		
NOG 5-31-71	12 57.2	+28 10	77	+88		5152	5288	159	NI		NOG 5-31-84	12 57.9	+28 05	65	+88	..L.....M	5828	5934	150	NA		
NOG 5-31-68	12 57.2	+28 14	58	+88	..E.....M	12-6P	5818	5922	388	NA	NOG 5-31-85	12 57.9	+28 13	56	+88	..L.....M	5156	5179	159	NI		
NOG 5-31-68	12 57.2	+28 13	57	+88		7099	7821	100	NI		NOG 5-31-82	12 57.9	+28 13	56	+88	..L.....M	6395	6346	50	NA		
NOG 5-31-78	12 57.2	+28 14	58	+88	..L.....M		7171	7183	30	NA	NOG 5-31-85	12 58.2	+28 28	58	+88	..S.....P	7513	7526	NA	NA		
NOG 5-31-78	12 57.2	+28 14	57	+88		7119	7131	100	NI		NOG 5-31-85	12 58.2	+28 46	389	+88	..SDFS...MARS	12-24C	1354	962	NA		
NOG 5-31-73	12 57.3	+28 11	56	+88		6967	6979	180	NI		NOG 5-31-85	12 58.3	+28 14	58	+88		6239	6263	100	NI		
NOG 5-31-73	12 57.3	+27 58	58	+88		8208	8219	150	NI		NOG 5-31-85	12 58.3	+28 14	55	+88	SDG	6243	6056	208	NI		
NOG 5-31-73	12 57.4	+28 15	57	+88		9346	9356	150	NI		NOG 5-31-85	12 58.3	+28 15	390	+88	..SDR...MARS	11-81C	2754	2645	NA		
NOG 5-31-75	12 57.5	+28 31	64	+88	..E.....M	6691	6705	50	NA		NOG 5-31-85	12 58.4	+28 25	69	+88	..S.....L	5868	5882	NA	NA		
NOG 5-31-75	12 57.5	+28 18	58	+88		7936	7949	188	NI		NOG 5-31-88	12 58.4	+28 21	58	+88	..E.....M	6927	6941	288	NA		
NOG 5-31-76	12 57.6	+28 15	58	+88	..L.....M	6214	6227	158	NA		NOG 5-31-88	12 58.4	+28 18	57	+88	..E.....M	8835	8851	150	NA		
NOG 5-31-76	12 57.6	+27 17	26	+88		5873	5881	188	NI		NOG 5-31-88	12 58.4	+28 17	57	+88	..E.....M	1432	4945	150	NA		
NOG 5-31-76	12 57.7	+28 26	82	+88		6758	6771	NA	NA		NOG 5-31-88	12 58.4	+28 38	63	+88	..S.....L	7686	7695	NA	NI		
NOG 5-31-77	12 57.7	+28 15	57	+88	..E.....M	6443	6456	NA	NA		NOG 5-31-88	12 58.6	+28 03	51	+88	..S.....L	8305	8318	NA	NA		
NOG 5-31-77	12 57.8	+28 29	53	+88	..L.....M	8405	8429	75	NA													
NOG 5-31-84	12 58.6	+28 14	398	+88	..E.....M	13-14C	3352	3354	50	NA	NOG 5-31-124	13 02.8	+28 13	12	+88		6534	6542	158	NI		
NOG 5-31-87	12 58.6	+28 04	58	+88		7605	7604	100	NI		NOG 5-31-84	13 03.3	+27 45	189	+88	..LBR...MARS	11-84C	1515	1388	75	NA	
NOG 5-31-88	12 58.6	+28 35	78	+88		7317	7376	NA	NA		NOG 5-31-126	13 03.4	+28 08	45	+88	..SDR...MARS	13-38C	2593	2574	NA		
NOG 5-31-101	12 59.1	+28 05	50	+88		6433	6446	188	NI		NOG 5-31-151	13 03.6	+28 43	6	+88		7381	7387	100	NI		
NOG 5-31-101	12 59.2	+28 26	75	+88		7588	7618	150	NI		NOG 5-31-151	13 03.9	+28 28	64	+88		7377	7398	100	NI		
NOG 5-31-101	12 59.3	+28 09	52	+88	..S.....M	6448	6472	NA	NA		NOG 5-31-156	13 04.5	+28 48	58	+88		6574	6594	150	NI		
NOG 5-31-105	12 59.5	+27 53	48	+88	..E.....M	7061	7073	150	NA		NOG 5-31-156	13 05.9	+28 14	385	+88	..E.....MARS	11-57C	1389	1141	NA		
NOG 5-31-105	12 59.6	+28 16	53	+88		7553	7572	100	NI		NOG 5-31-156	13 06.4	+28 38	65	+88		6903	6924	208	NI		
NOG 5-31-106	12 59.7	+28 31	75	+88		7286	7285	100	NI		NOG 5-31-156	13 07.8	+27 34	511	+88	..S.....MARS	12-21C	1635	1732	NA		
NOG 5-31-114	12 59.7	+27 54	45	+88		7176	7184	NA	NA		NOG 5-31-156	13 07.8	+27 34	511	+88	..S.....MARS	12-21C	1635	1732	NA		
NOG 5-31-114	12 59.7	+28 17	52	+88		5824	5839	150	NI		NOG 5-31-156	13 08.5	+27 19	102	+88	..S.....MARS	11-44C	3621	1074	NA		
NOG 5-31-118	12 01.5	+28 28	58	+88		6942	7009	NA	NA		NOG 5-31-156	13 08.7	+28 54	64	+88		6957	6984	188	NI		
NOG 5-31-118	12 01.5	+28 17	269	+88	..SDR...MARS	12-27C	844	727	48	NA	NOG 5-31-156	13 08.7	+28 50	63	+88		7163	7198	150	NI		
NOG 5-31-124	12 01.7	+28 29	288	+88	..S.....MARS	2988	2982	22	NI		NOG 5-31-156	13 09.0	+28 48	215	+88	..S.....MARS	2988	2988	NA	NA		
NOG 5-31-124	12 01.7	+28 26	87	+88	..E.....M	5865	5884	NA	NA		NOG 5-31-156	13 09.9	+28 57	28	+88		861	877	100	NI		
NOG 5-31-124	12 02.8	+27 50	41	+88		6981	6995	100	NI		NOG 5-31-156	13 10.3	+28 15	310	+88	..S.....MARS	12-81C	2937	2738	75	NA	
NOG 5-31-124	12 02.8	+27 50	41	+88		6981	6995	100	NI		NOG 5-31-156	13 11.2	+28 51	98	+88	..S.....MARS	13-73C	893	956	NA		
NOG 5-31-124	12 02.8	+28 35	52	+88		5813	5871	68	NI		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	
NOG 5-31-124	12 03.3	+28 08	311	+88	..L.....MARS	2744	2597	65	NA		NOG 5-31-156	13 12.8	+27 27	135	+88	..S.....MARS	8-74C	644	552	31	NA	

DESIGNATION	R#(1950)	DEC(1950)	L	B	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	R#(1950)	DEC(1950)	L	B	CLASSIFICATION	MAG	V	V0	ERROR
* MCG 8-27-2																				
MCG5683 * MCG 8-27-3	14 33.9	+46 53	96	+61	SB(S)B/R	22.68	2358	90	NC		1 ZW 98 * MCG 9-24-68 * IC1938 * MCG 7-31-29	14 56.4	+93 26	90	+59		15.60	9275	9447	68
MCG5687 * MCG 9-24-29	14 35.5	+54 52	95	+57	L.....SBGB	12.92C	2319	2358	75	HA	MCG5820 * ARP 126 * MCG 9-23-1	14 57.2	+94 04	91	+55	L.....SBGB	13.14C	3269	3445	68
MCG5689 * MCG 9-27-4	14 33.7	+46 57	97	+61	*SB(S)*,HGB	12.76C	2205	2359	90	HA	MCG5880 * MCG 9-28-16	14 57.5	+92 05	399	+68	*SB(S)...WGB	12.57C	1301	1309	65
MCG5713 * MCG 9-37-22	14 57.6	-00 05	351	+52	*SBASP*,PGB	12.88C	1944	1930	NA		1 ZW 96 * MCG 9-28-16	14 57.8	+92 13	71	+68	L.....SB	14.8P	2906	2944	60
MCG5746 * MCG 9-35-5 * MCG 9-35-5	14 42.8	+02 10	355	+53	*SB735/PGB	11.55C	1831 1904	1825 1959	NA HB		MCG5812 * MCG 1-28-16	14 58.2	-07 16	392	+43	L.....WGB	12.85C	2166	2840	50
1 ZW 98	14 43.8	+91 35	89	+64		18P	26993	27156	88	HH	MCG5813 * MCG 8-28-16	14 58.7	+91 54	354	+58	L.....WGB	12.15C	1682	1691	65
AMOM1446	14 43.8	+08 42	4	+97	P.....		10473	10491	NA		MCG5851 * MCG 9-26-20	15 01.6	+91 24	399	+58	L.....WGB	12.94C	1664	1673	50
AMOM1447	14 48.8	-09 57	344	+43	P.....		1890	1833	NA		1 ZW 180	15 01.9	+92 58	72	+98	L.....P	4463	5809	60	
11 ZW 78 * MCG 8-28-2 * VV 22AB	14 48.9	+39 45	9	+63	L...SP	11.29	1236	1236	88	HH	MCG5828 * MCG 9-28-27	15 02.9	+92 10	1	+69	L.....WGB	12.87C	1427	1441	50
11 ZW 71 * MCG 8-23-4 * VV 22AB	14 49.2	+35 45	59	+63	L...2P	12.04	1329	60	HH		MCG5846 * MCG 9-25-26	15 04.0	+91 48	338	+69	L.....PGB	11.87C	1771	1784	
MCG5776 * MCG 1-38-13	14 51.3	+03 47	359	+53	*SB77...WGB		1525	1534	NA		MCG5888 * MCG 9-28-25	15 04.0	+91 48	360	+69	L.....PGB	2291	2394	2389	
MCG5776 * MCG 1-38-14	14 51.5	+03 45	359	+52	*SB75SB/HGB	12.38C	1565	1574	NA		MCG5889 * MCG 8-26-2	15 04.6	+91 44	1	+69	*SB(S)...PGB	12.33C	2372	2385	
1 ZW 97 * MCG 7-31-0	14 53.4	+42 42	72	+61		144.1P	5455	5983	80	HH	MCG5886 * MCG 9-28-17	15 05.1	+93 57	92	+53	L.....PGB	11.65C	780	972	
MCG5792 * MCG 8-28-12	14 55.8	-00 54	355	+46	SB(S)B	12.4P	1905	1988	56	NC	MCG5887 * MCG 3-39-4	15 05.2	+93 47	27	+58	*SB(S)...WGB	4739	4783		
											MCG5891	15 05.3	+93 48	27	+58	*SB(S)...WGB	4864	4745	478	



SIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
MCG 3-20-5											MCG5938 = MCG 7-22-7 5929+33+AB00 = HOLMBERG 710	15 28.4	+61 51	60	+99	-E...-		2705	2660		NA
C0594 MCG 3-19-1	15 85.3	+82 45	2	+40	-L83+...W180	12.82C	1616	1616	85	NA	MCG5949	15 27.2	+61 55	101	+15	-SAB+...P200	13.07C	360	569		NA
C0596 MCG 3-19-2	15 87.8	+83 14	3	+40	2M1320		1618	1620	82	MC	I 2M 114 = MCG 0-28-58	15 31.3	+66 39	75	+93		19.2P	643	816	60	NA
C0599 MCG 3-22-1	15 89.4	+87 12	23	+58	-SAB+...W060	12.88C	676	1804	66	NA	MCG5953 = MCG 3-08-9	15 32.3	+15 22	24	+90	-E....-		2108	2108		NA
M0597 MCG 3-23-6	15 11.9	-14 35	147	+26	-SAB+...W180	12.81D	2111	2870	85	NA	MCG5955 = MCG 3-08-9	15 32.3	+15 22	24	+98	-E....-		2110	2228		NA
C0598 MCG 7-31-45	15 10.2	+62 14	69	+57	-SAB+...W060	12.73C	8940	2706	50	NA	MCG5956 = MCG 3-08-9 5953+54+ABP01 = P2004	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
DM 2	15 14.1	+87 13	9	+48			9183	10079	74	NA	I 2M 116 = MCG 7-31-33	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
DM 3	15 14.1	+87 13	9	+48			19159	10293	52	NA	J 2M 117	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
C0597 16-7+MCG59-25-11	19 14.8	+90 31	12	+91	-SAB+...P200	11.32C	595	729		NA	MCG5962 = MCG 3-08-11	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
C0599 MCG 3-04-26-8	15 15.2	-23 55	141	+28	-E...-...W060	13.88C	2894	2231	288	NA	I 2M 118	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
C0593 MCG 3-04-26-8	15 15.6	-23 51	141	+28	-E...-...W060	13.14C	2612	2929	158	NA	J 2M 119	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
2M 106	15 16.2	+62 55	70	+56		14.4P	11976	12132	60	NA	J 2M 120	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
DM1516	15 16.3	+63 83	71	+56	-P....-		12110	12127		NA	J 2M 121	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
C0595 MCG 3-23-19	15 16.8	+12 55	250	+86	SB151AMP	12.5P	2287	2287	18	MC	MCG5970 = MCG 3-08-6	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
C0591 MCG 3-19-21	15 16.9	+85 15	8	+48	-SAB+...W180	11.81C	1369	1429	150	NA	MCG5985 = MCG 18-22-38	15 38.8	+59 38	93	+97	-SAB+...P200	11.77C	2467	2675	40	NA
2M 181	15 19.7	+62 36	69	+56		18P	28446	28446	60	NA	J 2M 124	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
C0599 MCG 7-32-6	19 24.8	+61 50	68	+95	-E...-...		2528	2532		NA	J 2M 125	15 34.0	+30 50	82	+94		14.4P	5431	5640	60	NA
SIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VB	ERROR	REF
C0655 MCG 18-23-3	15 58.7	+62 24	36	+44	-SAB+...P200	11.83C	674	849		NA	= MCG 8-41-103										
2M 129	15 59.0	+62 01	67	+50		14.3P	10333	10512	60	NA	IC1181A	16 03.3	+17 47	21	+44			18224	18444		NA
C0627A MCG 3-03-6	15 57.0	+28 55	55	+67	-L...-...P200		4452	4161		NA	IC1181B	16 03.3	+17 47	21	+44			18048	18812		NA
C0627B MCG 3-03-6	15 57.0	+28 55	55	+67	-L...-...P200		4452	4161		NA	MCG6006	16 03.3	+17 47	21	+44			11638	11781		NA
C0627C MCG 3-03-6	15 57.0	+28 55	55	+67	-L...-...P200		4452	4161		NA	IC1185 = MCG 3-03-310	16 03.3	+17 47	21	+44			18052	18579	288	NA
C0604A MCG 3-03-6	15 57.4	+28 86	113	+34	-L...-...M		4800	4224		NA	IC1186 = MCG 3-03-331	16 03.3	+17 47	21	+44			18812	11134		NA
C0604B MCG 3-03-6	15 58.1	+28 86	113	+34	-L...-...M		3529	4153		NA	MCG6008 = MCG 3-03-310	16 03.3	+17 47	21	+44			11149	11294		NA
C0611 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	IC1199 = MCG 3-03-310	16 03.3	+17 47	21	+44			11642	11786	85	NA
C0612 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6070 = MCG 3-03-6	16 03.3	+17 47	21	+44			11642	11786	85	NA
C0613 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	I 2M 133 = MCG 7-32-11	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0614 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	I 2M 134 = MCG 7-32-11	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0615 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6088 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0616 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6089 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0617 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6090 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0618 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6091 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0619 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6092 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0620 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6093 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0621 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6094 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0622 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6095 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0623 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6096 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0624 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6097 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0625 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6098 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0626 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6099 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0627 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6100 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0628 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6101 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0629 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6102 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0630 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6103 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0631 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6104 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0632 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6105 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0633 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6106 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0634 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6107 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0635 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6108 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0636 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6109 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0637 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6110 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0638 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6111 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0639 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6112 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0640 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6113 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0641 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6114 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0642 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6115 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0643 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6116 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0644 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6117 = MCG 3-03-6	16 07.6	+61 53	66	+67		15.5P	7674	7662	60	NA
C0645 MCG 3-03-6	16 02.4	+17 49	21	+48	-L...-...M		1837	1870		NA	MCG6118 = MCG 3-03										

DESIGNATION	RA(1950)	DEC(1950)	L	B	II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L	B	II	CLASSIFICATION	MAG	V	V0	ERROR
IC4662 IC4662								377 375	239 237	14	HD HE	HCG6656 = HCG 4-44-2	19 31.9	+20 50	52	+14		...../W100		4270	4588	58
I 2W 142 = HCG 5-29-16	17 42.9	+28 59	63	+29		15.5P	15762	10000	60		H	HCG6661 62/1HCG 4-44-2	19 32.5	+22 52	52	+14		...../W100		4316	4554	
HCG6676 = HCG 5-29-32	17 49.3	+51 10	73	+30		.....M	6857	7134	52		HA	HCG6674 = HCG 4-44-7	19 36.5	+25 28	55	+14		...../W100		4502	3740	58
I 2W 194 = HCG 5-29-39/40	17 49.3	+56 41	35	+31		16.8P	6294	5555	60		HW	HCG6684 HCG6684	19 44.1	+65 14	330	-24		...../W100	11.75C	434	733 838	735
HCG6682 = HCG 4-42-8	17 49.4	+23 05	48	+25		.....E2...L...	1922	4137	60		HA	HCG6702 = HCG 8-24-19	19 45.9	+45 31	75	+28		...../W100		4726	5103	
HCG6693 HCG6693 = HCG 12-17-9	17 49.9	+79 10	191	+51		.....S4S5...P200	11.43C	26 13	279 266	32	HA HB	HCG6783 = HCG 8-24-23	19 45.9	+45 36	79	+28		...../W100		2335	2609	
I 2W 208	17 50.6	+54 80	82	+30			12P	19919	16177	60	HH	HCG6699	19 47.4	+57 23	339	-23		...../W100	12.75C	2997	2746	
HCG6678 = HCG 2-48-10	18 09.5	+14 58	42	+15		.....S2E1...W100	1.128C	2360	2572		HA	HCG6710 = HCG 4-44-13	19 48.6	+26 47	57	+12		...../W100		4556	4610	50
HCG6671 = HCG 11-22-23 6621/22-ARP61	18 13.5	+65 18	98	+29		.....P*	6250	6490			HA	IC4797 IC4797	19 52.5	+54 22	342	-22		...../W100	12.48C	2845 2355	2612 2814	
HCG6677 = HCG 2-48-1	18 20.5	+19 39	44	+13		.....S332...L236	5206	5449	180		HA	HCG6744 HCG6744	19 55.0	+63 56	332	-26		...../W100	9.78C	459	544	459
HCG6643 = HCG 12-17-23	18 21.2	+74 23	106	+28		.....S2T5...P200	12.16C	1538	1709		HA	HCG6753 HCG6753	19 07.2	+57 05	318	-29		...../W100	12.18C	3846 3846	2983 2983	
I 2W 205	18 24.4	+28 18	67	+21			15P	7382	8154	60	HH	HCG6769	19 13.9	+68 55	336	-27		...../W100	12.75C	3930	3642	50
HCG6694 = HCG 12-17-23	18 29.2	+73 89	184	+28		.....P5B6...H666	1924	2190			HA	HCG6778	19 14.2	+60 36	316	-27		...../W100		4130	3532	50
HCG6635 = HCG 2-47-3	18 29.3	+34 44	44	+32		.....L436	5871	5284			HA	HCG6771	19 14.4	+60 41	336	-27		...../W100		4120	4021	50
I 2W 206	18 30.2	+55 14	84	+25			15.5P	5538	5807	50	HH	IC1382 = HCG 5-43-2	19 28.3	+35 59	69	+86		...../W100		4575	4057	50
I 2W 207	18 31.8	+54 09	84	+25			16P	8718	6941	60	HK	HCG6810 HCG6810	19 39.4	+50 47	339	-30		...../W100	12.63C	1823 1823	1738 1735	

DESIGNATION	RA(1950)	DEC(1950)	L	B	II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L	B	II	CLASSIFICATION	MAG	V	V0	ERROR
HCG6814 = HCG 2-50-1	19 39.9	+18 25	29	-56		.....S4T4...P200	12.34C	1437	1509	40	HA	= HCG 4-48-22										
HCG6822 HCG6822 = HCG 2-50-5	19 42.1	+14 53	25	-24		.....S3D9.....	9.97C	- 68 - 21	73 112	24	HA HD	HCG6846 = HCG 10-29-8	20 32.9	+59 58	96	+12		...../W100	18.28C	60	371	
IC1804	19 42.3	+14 51	25	-16				- 38	103	38	HA	HCG6844 = HCG 1-12-17	20 39.9	+66 48	52	-20		...../L036		4455	4644	
HCG6824 = HCG 9-32-12	19 42.6	+55 54	89	+15		.....S4S5...H666	3366	3676	38		HA	HCG6891 = HCG 11-25-2	20 36.9	+49 16	181	+15		...../W100	12.08C	1364	1447	
HCG6829 = HCG 9-32-9	19 51.8	+32 42	29	-19		.....S51514	13.8P	1728	1669	23	HC	HCG6894 = HCG 0-93-1	20 41.4	+83 81	50	-23		...../W100		4811	4828	180
AND1955A	19 55.1	+42 17	76	+06		.....E.C....	4796	5687			HA	HCG6902 = HCG 4-53-3	20 44.7	88 88	67	-25		...../W100		4182	4388	79
AND1955B	19 55.1	+42 17	76	+06		.....E.C....	4768	5608			HA	HCG6903 = HCG 5-93-4	20 44.8	88 88	67	-25		.....E.C....		4351	4558	50
HCG6868 HCG6868	20 84.3	+48 21	351	-33		.....E.C....S330	12.27C	2766 2776	2734 2746		HA HE	HCG6904 = HCG 0-93-5	20 44.8	88 88	67	-25		.....E.C....		3932	4839	190
HCG6875	20 89.6	+46 19	354	-33		.....E.C....S330	12.62C	3263	3889			HCG6958 HCG6958	20 45.4	+38 11	5	-19		.....E.C....S330	12.61C	2757 2757	2784 2785	
IC1317 = HCG 5-52-4	20 28.7	88 36	44	+20		.....L636	3975	4181			HA	IC5052	20 47.5	+69 25	325	-16		.....S377/S303	12.47C	966	465	
HCG6 = HCG 4-48-1	20 28.4	+25 33	67	+06		.....S4S5...L636	4337	4959	48		HA	HCG6972 = HCG 2-93-4	20 47.6	+69 44	57	-18		E4		4442	4682	57
HCG6927 = HCG 2-92-16	20 38.2	+69 43	54	-17		.....L436	4277	4518	54		HA	HCG6976 HCG6976	20 48.6	+48 59	391	-48		...../W100	13.44C	5155 5543	5126 5448	158
HCG6973	20 38.2	+69 41	54	-17		.....E.C....	4429	4658			HA	HCG6978 = HCG 1-53-17	20 49.9	+95 54	42	-38		58		5669	6054	50
HCG6923 = HCG 2-92-17	20 38.4	+69 45	54	-17		.....S5S2...H6100	4754	4993	75		HA	AND1955B	20 58.5	+36 06	64	+19		.....E.C....		8148	9467	258
HCG6930 = HCG 2-92-18	20 38.9	+69 43	54	-17		.....S5S2...H6100	4182	4421	75		HA	AND1955B	20 58.8	+35 55	64	+19		.....E.C....		11595	11593	58
HCG6925 HCG6925	20 31.2	+32 09	11	-35		.....S4S5...H6100	12.18C	2619 2619	2677 2674		HA HE	AND1955B	20 58.6	+35 55	64	+19		.....E.C....		11705	12223	58
												HCG7013	21 01.4	+29 42	76	+11		...../W100		578	457	24

DESIGNATION	RA(1950)	DEC(1950)	L	B	II	CLASSIFICATION	MAG	V	V0	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L	B	II	CLASSIFICATION	MAG	V	V0	ERROR
= HCG 5-48-1												HCG7173 = HCG 5-52-8	21 59.1	+32 13	15	+53		E		2490	2540	39
II 2W 101	21 05.1	+82 41	84	+28			14.6P	7471	7695	50	HH	HCG7172 = HCG 5-52-7	21 59.1	+32 07	15	+53		S		2462	2715	44
HCG7029 HCG7029	21 08.4	+44 30	398	+43		.....E18...S674	12.64C	2898 2898	2956 2956		HA HA	HCG7174 = HCG 1-52-10	21 59.2	+32 15	15	+53		S		2778	2825	31
II 2W 109	21 12.9	+21 20	73	+17			15.5P	13966	13830	60	HH	HCG7176 = HCG 5-52-11	21 59.2	+32 14	15	+53		E		2820	2572	29
HCG7041 HCG7041	21 13.9	+48 35	351	+44		.....L37...S638	12.24C	1435 1939	1908 1905		HA HC	IC5152 IC5152	21 59.6	+81 82	344	+90		...../W100	11.91C	78 58	31 14	
HCG7049 HCG7049	21 15.6	+48 47	358	+44		.....L436	12.04C	2181 2181	2193 2117		HA HC	HCG7196 HCG7196	22 02.6	+50 22	344	+91		...../W100	12.89C	3814 3016	2975 2975	
II 2W 136	21 33.2	+09 56	64	+29			14.6P	18313	18552	60	HH	HCG7205 HCG7205	22 08.1	+57 40	339	+48		...../W100	11.78C	1482	1484	
HCG7098 HCG7098	21 32.9	+54 47	341	+45		.....S5S2...H6100	11.74C	780 780	730 730		HA HE	HCG7217 = HCG 5-52-1	22 08.6	+31 07	67	-20		...../W100	11.74C	1482	1482	30
IV 2W 74	21 39.7	+25 84	78	+21			15.5P	17927	18209	60	HH	HCG7218 HCG7218	22 08.2	+47 25	351	+51		...../W100	12.44C	1778 1818	1751 1779	
HCG7137 = HCG 4-55-5	21 45.9	+21 56	78	+24		.....S4T5...P200	12.29C	1885	1774		HA	II 2W 168	22 07.2	+17 24	77	+51			15.3P	8884	8263	60
HCG7139	21 46.9	+35 87	18	+51		.....S4S5...H674	12.13C	1513 2801	2801		HA HE	HCG7236 = HCG 2-96-23	22 12.3	+13 36	75	+34		...../W100		7852	8493	
HCG7144 HCG7144	21 49.5	+48 29	347	+50		.....L436	12.13C	1513 2801	2801		HA HE	HCG7237 = HCG 2-96-23	22 12.3	+13 35	75	+34		...../W100		7852	8493	
HCG7145	21 50.1	+48 87	349	+50		.....E8	12.4	1958	1920	60	HF	HCG7248 = HCG 6-48-23	22 13.4	+57 82	92	+16		...../W100		5884	6271	79
HCG7186 = HCG 8-33-29	21 52.0	+82 42	61	+38		.....S4B1...H6100	12.4	2866	4177	60	HC	HCG7249	22 13.9	+57 83	92	+16		...../W100		5884	5971	180
HCG7177 = HCG 2-98-3	21 54.2	+17 29	78	+25		.....S4B1...H6100	12.29C	1105	1365	75	HA											
HCG7171 = HCG 2-98-4	21 54.3	+13 31	43	+48		.....S4B1...H6100	12.74C	2682	2776	50	HA											
HCG7168	21 58.9	+57 80	345	+50		.....E3	12.4	3089	2960		HF											

IGNITION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VO	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VO	ERROR	REF	
NGC 6-40-25 J292 ARP226	22 14.0	-24 56	28	-56	RLAR...M100	13.130	4723	4817	55	MA	NGC7332 = NGC 4-52-8						50 P	871	1138	40	MC	
J230 NGC 3-57-5	22 24.0	+15 5	5	-3	50	1812	2054	80	MC	NGC7339 = NGC 4-52-9	22 35.4	+23 38	88	-29	SAB(rs)BC	1271	1580	27	MC			
J232 CG225 NGC 2-57-12	22 29.7	-14 23	48	-55	-LAS...M100	13.430	2586	2716	65	MA	NGC7343 = NGC 6-40-59	22 39.4	+33 46	94	-21	-SBS...M	1216	1493	200	MA		
J2389 NGC 2-57-16	22 31.6	-18 37	54	-54	SAB(rs)BC	12.1	3128	4084	35	MC	J3 7M 185 = IC5142	22 40.9	+23 05	89	-31		15P	7164	7363	60	HH	
J2314 NGC 4-52-15 ARP 34	22 33.0	-28 18	27	-60	-SAB(rs)P210	11.680	1766	1859	90	MA	NGC7351 = NGC 7-53-27	22 39.0	+45 04	358	-59	-SAB(rs)BC	12.490	1553	1611	61	MC	
J2317 NGC 6-40-31	22 32.6	+33 41	91	-21	-E...P		6736	7013	69	MA	EV 2M 111	22 40.8	+33 24	93	-24		16P	9712	9984	80	HH	
J2318A NGC 6-40-39	22 32.7	+33 42	93	-21	-E...P	10.36	6189	5967		MA	NGC7373 = NGC 7-50-1	22 43.4	+11 16	56	-56	SAB(rs)A	12.9P	2384	2523	45	MC	
J2318B NGC 6-40-40	22 31.7	+33 42	93	-21	-SBS(rs)P	10.36	5727	6059		MA	NGC7377 = NGC 4-55-36	22 45.1	-22 05	36	-62	-LAS...M100	12.750	3416	3502	65	MA	
J2314 NGC 6-40-41 17-50-ARP219 VV208	22 31.8	+33 42	93	-21	-SBS(rs)P	10.36	5857	6355	90	MA	NGC7385 = NGC 2-56-17	22 47.6	+11 21	82	-41	-E...M		7829	8051	65	MA	
J2320 NGC 6-40-42	22 33.0	+33 41	95	-21	-SBS(rs)P	10.36	789	1973		MA	NGC7386 = NGC 2-58-16	22 47.6	+11 26	82	-41	-E...M		7139	7420	65	MA	
J2321 NGC 6-40-43	22 33.0	+33 41	95	-21	-SBS(rs)P	10.36	789	1973		MA	NGC7393 = ARP 115 = NGC 7-58-2 = VV 68	22 49.0	+05 49	89	-54	-SAB(rs)M100		3813	3972		MA	
J2321 NGC 6-40-43	22 33.0	+33 41	95	-21	-SBS(rs)P	10.36	789	1973		MA	NGC7392 = NGC 4-55-40	22 49.0	+05 49	89	-54	-SAB(rs)M100	12.930	2941	3034		MA	
J2325 NGC 6-40-47	22 35.0	+33 41	96	-21	-E...M		6238	6576	60	MA	NGC7410	22 52.1	+25 96	358	-83	-LAS...M100	11.770	1638	1637		MA	
J2332	22 36.0	+23 32	87	-38	-LAS...P210	12.580	6284	1463	50	MA	IC5267	22 54.4	+48 43	358	-82	-SAB(rs)BC	11.690	1715	1695		MA	
											IC4603	22 54.5	+04 25	78	-48	-E...M		7267	7458	75	MA	

DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VO	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VO	ERROR	REF
NGC 1-58-15											= NGC 1-59-5										
459 IC459	22 58.5	-56 41	5	-54	-E...P,RR74		1610	1632		MA	NGC7501	23 04.0	+07 19	84	-48	-E...M		12734	12914	90	MA
							1572	1593		MC	= NGC 1-59-7										
NGC 1-58-15	22 57.8	+15 43	88	-39	-SAB(rs)M100	12.330	2419	2050	250	MA	NGC7503	23 08.0	+07 15	84	-40	-E...M		13229	13420	55	MA
ARP 33 NGC 1-58-15											= NGC 1-59-8										
ZH 128	22 57.8	+26 32	94	-39		17P	7051	7810	40	HH	NGC7507	23 04.4	+28 48	23	-49	-E...M	12.360	1637	1644	75	MA
NGC 1-58-26	22 58.6	+29 53	96	-27	-LAT...P210	12.180	525	765	290	MA	= NGC 1-54-22										
NGC 1-58-26											NGC7507	23 12.0	+04 13	83	-51	SAB0		2662	2860	10	MC
NGC 1-58-26											= NGC 1-59-16										
NGC 1-58-22	22 58.4	+15 42	88	-39	S		2640	2676	26	MC	NGC7511	23 12.1	+43 53	346	-59	SAB(rs)BC	12.6	1718	1682	60	MC
NGC 1-58-22											= NGC 1-59-17										
NGC 1-58-23	22 59.4	+15 42	88	-39	E		1672	2102	32	MC	NGC7511	23 12.2	+04 15	83	-51	-SAB(rs)M100	12.650	2672	2894	100	MA
NGC 1-58-23											= NGC 1-59-17										
NGC 1-58-26	22 59.5	+15 41	88	-39	S		1994	2224	28	MC	NGC7527	23 12.4	+06 25	85	-49	-E...P		2886	4000		MA
NGC 1-58-26											= NGC 1-59-24										
NGC 1-58-26											NGC7552	23 13.5	+42 53	316	-65	PBS(rs)BC	11.830	1662	1639		MA
NGC 1-58-26											NGC7552										
NGC 1-58-29	23 00.7	+08 36	83	-45	-SAB(rs)M100	13.320	4587	5615		MA	NGC7552										
NGC 1-58-29											NGC7576	23 16.9	+05 01	74	-54	-LAS...P		1667	1634		MA
NGC 1-58-29											NGC7576										
NGC 1-58-29											= NGC 1-59-52										
ZH 187	23 01.6	+22 21	93	-34		14.7P	11621	11668	68	HH	NGC7585	23 16.4	+04 56	74	-58	-LAS...P	12.790	3352	3502		MA
NGC 1-58-68	23 02.4	+12 03	86	-45	-SBS(rs)P210	11.740	2441	2659		MA	= ARP223										
NGC 1-58-68											= NGC 1-59-15										
NGC 1-58-68											NGC7582	23 16.8	+02 38	348	-66	PBS(rs)BC	11.970	2455	2486		MA
NGC 1-58-68											NGC7582										
ZH 185 IC5285 NGC 4-54-26	23 04.5	+22 40	93	-34		14.4P	6273	8468	60	HH	NGC7592	23 16.9	+04 42	75	-58	-LAS...P	12.790	3352	3502		MA
NGC 4-54-26											= NGC 1-59-17										
NGC 4-54-26	23 07.0	+43 42	340	-64	-SBS(rs)M100	12.110	1478	1446		MA	NGC7592	23 16.3	+42 31	348	-66	-SAB(rs)BC	12.430	1302	1334		MA
NGC 4-54-26											NGC7599										
ZH 94	23 07.8	+06 14	85	-47		18P	12577	12781	88	HH	NGC7599										
											NGC7599										
Y439	23 07.5	+07 18	84	-48	-E...M		13916	12316	58	MA	NGC7599										

STATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VO	ERROR	REF	DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	VO	ERROR	REF
07618 NGC 1-59-39	23 16.3	+07 52	79	-63	-E...P	12.240	1251	3528	68	MA	= NGC 8-55-17 NGC7679 = NGC 8-58-46 767902+ARP216	23 26.2	+03 15	67	-53	-LAS...P	12.870	5594	5338		MA
07608 NGC 2-59-12	23 16.5	+08 46	89	-61	-SAB(rs)M100	11.670	2341	2475	75	MA	EV 2M 153	23 27.6	+25 15	101	-34		15.0P	5327	5971	60	HH
F539	23 16.7	+07 32	340	-60	-SAB(rs)M100	12.100	1539	1513		NO	NGC7702	23 32.7	+01 53	68	-56	-SAB(rs)P210	12.980	6086	6399		MA
07611 NGC 1-59-49	23 17.1	+07 47	87	-48	-E...M		3363	3566	65	MA	NGC7714 = NGC 8-58-17	23 33.7	+01 53	68	-56	-SAB(rs)P210		2833	3808		MA
7647 NGC 1-59-51A	23 17.6	+07 44	88	-48	-E...M		4072	4269	198	MA	NGC7714 = NGC 8-58-18 7714+15+ARP294 = VV81	23 33.4	+01 53	68	-56	-LAS...P		2795	2962		MA
F519 NGC 1-59-52	23 17.8	+07 55	88	-48	-E...M	12.890	3747	3944	58	MA											
07632 NGC 1-59-56	23 18.0	+08 08	89	-48	-E...M		3463	3661	65	MA	NGC7713 = NGC 8-58-19	23 33.4	+01 53	68	-56	-LAS...P	12.8P	667	659	30	MC
07625 ARP212 NGC 2-59-35 VV280	23 18.0	+10 57	91	-45	-SAB(rs)M100	13.230	1704	2409			NGC7716 = NGC 8-58-14	23 33.9	00 01	57	-57	-SAB(rs)M100	12.170	2566	2761	150	MA
07626 NGC 1-59-59	23 18.2	+07 56	88	-48	-E...M	12.940	3357	3554	58	MA	NGC7721 = NGC 1-58-17	23 34.7	+06 43	80	-63	-SAB(rs)	12.4P	2838	3171	27	MC
07648 NGC 1-59-59	23 18.7	+08 38	189	-19	-SAB(rs)P210	11.940	420	652	26	MC	NGC7727 = NGC 2-58-5	23 38.4	+13 14	69	+68	-SAB(rs)P210	10.130	1373	2877		MA
07648 NGC 2-58-2	23 22.6	+12 46	92	+45		15.7P	12764	12995	68	MA	NGC7727 = NGC 2-58-8 = NGC7722 = NGC76	23 37.3	+12 34	71	+68	-SAB(rs)M100	11.750	1846	1993		MA
07671 NGC 2-59-44	23 24.8	+12 32	93	+45	-E...M	12.036	4329	4336		MA	AR022398A AR022398B	23 34.3	+23 04	85	-61	-S...P		1677	5919	66	MA
07673 NGC 4-59-14	23 25.2	+23 19	98	-35		12.1P	3393	3295	68	MA	NGC7742 NGC7743 = NGC 4-59-59	23 41.4	+23 48	105	-34	-SAB(rs)P210	10.240	724	944	50	MA
07678 NGC 4-59-14	23 26.1	+23 04	98	-37	-SAB(rs)M100	12.930	3446	3680	65	MA	NGC7742	23 41.8	+10 79	97	+49	-SAB(rs)P210	12.980	1678	1878		MA

DESIGNATION	RA(1950)	DEC(1950)	L II	B II	CLASSIFICATION	MAG	V	V8	ERROR	
* NGC 2-68-10										
NGC7763	23 41.0	+09 39	97	-50	RL95+...P206	12.460	1822	1992	65	H
* NGC 2-64-11										
NGC7752	23 44.9	+29 13	107	-23	.P1...L936		4868	5105	77	::
* NGC 3-56-4										
NGC7753	23 44.6	+29 12	107	-21	.SXT3...L936		4845	5085	32	H
* NGC 3-56-9										
7753+94+ARP86										
NGC7759	23 45.3	+28 48	16	-76	SC		2898	2918	15	::
NGC7759					.3...5...M030	12.110	5148	5208	74	H
* NGC 3-56-14										
NGC7759	23 46.5	+19 52	184	-41	MSAT3...M065	13.840	4549	4565		H
* NGC 3-58-38										
NGC7778	23 46.6	+19 48	184	-41	.5...2...L		4338	4554		H
* NGC 3-60-34										
NGC7771	23 46.9	+19 58	184	-41	.S051...M066		4282	4418		H
NGC7771							4283	4588	57	::
* NGC 3-60-35										
NGC7785	23 52.8	+05 38	99	-54	.E...5...M188	12.970	3846	4815	65	H
* NGC 1-60-49										
NGC7748	23 55.3	-32 51	5	-77	.SAS6...M168	9.930	192	197		H
NGC7796	23 56.9	+09 44	318	-68	.E-2...S636	12.990	3511	3433		::
NGC7796							3511	2814		H
BN022854	23 54.2	+19 49	78	-74	.T...9...L836		- 78	2	20	PL

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